

WHAT IS CLAIMED IS:

1. A mirror device for a vehicle comprising:

a first gear which is rotatable; and

a second gear which is connected to the first gear so as to be tiltable, and due to the first gear being rotated, the second gear is rotated integrally with the first gear, and a mirror for a vehicle is thereby rotated.

2. The mirror device for a vehicle of claim 1, further comprising at least one of:

first bearings supporting a rotating central shaft of the first gear at both sides of the first gear; and

second bearings supporting a rotating central shaft of the second gear at both sides of the second gear.

3. The mirror device for a vehicle of claim 1, wherein a connecting hole is formed at a rotating central shaft of one of the first gear and the second gear, and a connecting shaft is provided at a rotating central shaft of the other of the first gear and the second gear, and the first gear and the second gear are connected together via the connecting hole and the connecting shaft.

4. The mirror device for a vehicle of claim 3, wherein the connecting hole and the connecting shaft are structured such that

the connecting shaft is able to tilt within the connecting hole when the connecting hole and the connecting shaft are engaged.

5. The mirror device for a vehicle of claim 4, wherein the connecting hole is shaped as a substantially oval column which has a pair of curved side surfaces which oppose one another, and at which oval column a diameter between other opposing side surfaces, in a cross-section orthogonal to a longitudinal direction, gradually decreases toward a longitudinal direction central portion, and the connecting shaft is shaped as a substantially rectangular column.

6. The mirror device for a vehicle of claim 4, wherein the connecting hole is shaped as a substantially oval column having a pair of opposing flat side surfaces, and the connecting shaft is shaped as a substantially rectangular column.

7. The mirror device for a vehicle of claim 1, further comprising a worm gear which is provided at an output shaft of a motor and which is rotated due to the motor being driven, and the first gear engages with the worm gear.

8. The mirror device for a vehicle of claim 1, further comprising a helical gear which is connected to a vehicle body and which engages with the second gear, and as the second gear rotates, the

second gear is rotated around the helical gear and the mirror is thereby rotated.

9. A mirror device for a vehicle comprising:

a first worm gear which is provided at an output shaft of a motor and which is rotated due to the motor being driven;

a first helical gear which is rotatable and engages with the first worm gear;

a second worm gear which is tiltably connected to the first helical gear, and which is rotated integrally with the first helical gear due to the first helical gear being rotated; and

a helical gear which is connected to a vehicle body and which engages with the second worm gear, and as the second worm gear rotates, the second worm gear is rotated around the helical gear and a mirror is thereby rotated.

10. The mirror device for a vehicle of claim 9, further comprising at least one of:

first bearings supporting a rotating central shaft of the first helical gear at both sides of the first helical gear; and

second bearings supporting a rotating central shaft of the second worm gear at both sides of the second worm gear.

11. The mirror device for a vehicle of claim 9, wherein a connecting hole is formed at a rotating central shaft of one of the first

helical gear and the second worm gear, and a connecting shaft is provided at a rotating central shaft of the other of the first helical gear and the second worm gear, and the first helical gear and the second worm gear are connected together via the connecting hole and the connecting shaft.

12. The mirror device for a vehicle of claim 11, wherein the connecting hole and the connecting shaft are structured such that the connecting shaft is able to tilt within the connecting hole when the connecting hole and the connecting shaft are engaged.

13. The mirror device for a vehicle of claim 12, wherein the connecting hole is shaped as a substantially oval column which has a pair of curved side surfaces which oppose one another, and at which oval column a diameter between other opposing side surfaces, in a cross-section orthogonal to a longitudinal direction, gradually decreases toward a longitudinal direction central portion, and the connecting shaft is shaped as a substantially rectangular column.

14. The mirror device for a vehicle of claim 12, wherein the connecting hole is shaped as a substantially oval column having a pair of opposing flat side surfaces, and the connecting shaft is shaped as a substantially rectangular column.

15. A retracting mechanism of an outer mirror device for a vehicle, comprising:

a connecting member connected to an outer mirror for a vehicle;

a first worm gear which is provided at an output shaft of a motor provided at the connecting member, and which is rotated due to the motor being driven;

a first helical gear which is provided at the connecting member, and which is engaged with the first worm gear, and which is rotated due to the first worm gear being rotated;

a second worm gear which is provided at the connecting member, and which is tiltably connected to the first helical gear, and which is rotated integrally with the first helical gear due to the first helical gear being rotated; and

a second helical gear which is connected to a vehicle body and which is engaged with the second worm gear, and due to the second worm gear being rotated, the second worm gear is rotated around the second helical gear and the outer mirror is thereby rotated together with the connecting member.

16. The retracting mechanism of an outer mirror device for a vehicle of claim 15, further comprising at least one of:

first bearings supporting a rotating central shaft of the first helical gear at both sides of the first helical gear; and

second bearings supporting a rotating central shaft of the

second worm gear at both sides of the second worm gear.

17. The retracting mechanism of an outer mirror device for a vehicle of claim 15, wherein a connecting hole is formed at a rotating central shaft of one of the first helical gear and the second worm gear, and a connecting shaft is provided at a rotating central shaft of the other of the first helical gear and the second worm gear, and the first helical gear and the second worm gear are connected together via the connecting hole and the connecting shaft.

18. The retracting mechanism of an outer mirror device for a vehicle of claim 17, wherein the connecting hole and the connecting shaft are structured such that the connecting shaft is able to tilt within the connecting hole when the connecting hole and the connecting shaft are engaged.

19. The retracting mechanism of an outer mirror device for a vehicle of claim 18, wherein the connecting hole is shaped as a substantially oval column which has a pair of curved side surfaces which oval column oppose one another, and at which a diameter between other opposing side surfaces, in a cross-section orthogonal to a longitudinal direction, gradually decreases toward a longitudinal direction central portion, and the connecting shaft is shaped as a substantially rectangular column.

20. The retracting mechanism of an outer mirror device for a vehicle of claim 18, wherein the connecting hole is shaped as a substantially oval column having a pair of opposing flat side surfaces, and the connecting shaft is shaped as a substantially rectangular column.